

## ABSTRACT

In a first aspect, silicon polymers are provided that have controlled ratio of silanol (Si-OH) moieties:Si atoms and/or a controlled amount of alkaline aqueous-solubilizing groups. Si-polymers of the invention are particularly useful as a photoresist resin  
5 component. In a further aspect, halogenated sulfonamide and thiol compounds and Si-containing polymers comprising such reacted monomers are provided.